

REMARKS

Claims 1-18 and 27-36 are pending in this application.

The courtesies extended to Applicants' representative by Examiners Ge and Chen at the interview held October 10 are appreciated. The reasons presented at the interview as warranting favorable action are incorporated into the remarks below and constitute Applicants' record of the interview.

I. The Claims Are Patentable Over The Applied References

The Office Action (1) rejects claims 1, 3-4, 6, 10, 12-13, 15, 27, 29-30, 32 and 36 under 35 U.S.C. §103(a) over U.S. Patent Publication No. 2002/0027603 to Kuwata et al. (Kuwata) in view of U.S. Patent No. 6,754,382 to Borg; (2) rejects claims 1, 7-8, 10, 16-17, 27, 33-34 and 36 under 35 U.S.C. §102(e)¹ over U.S. Patent No. 6,980,325 to Sugiura et al. (Sugiura) in view of Kuwata, and further in view of Borg; and (3) rejects claims 2, 5, 9, 11, 14, 18, 28, 31 and 35 under 35 U.S.C. §103(a) over Kuwata in view of Borg, and further in view of U.S. Patent No. 7,110,143 to Bares et al. (Bares). Applicants respectfully traverse the rejections.

A. Rejections (1) and (3)

Regarding independent claim 1, Kuwata fails to disclose (1) "determining means for determining whether image data to be processed includes color space information identifying a color space in which the image data is defined;" and (2) "inferring means for determining the color space of the image data that is to be processed based on characteristics of the image

¹ 35 U.S.C. §102(e) is not a basis for an obviousness rejection. Applicants respond based on the assumption that the rejection was intended to be under 35 U.S.C. §103(a). If Applicants' understanding is incorrect, the rejection should be withdrawn as improper.

data when the determining means determines that the image data does not include color space information."

Regarding independent claim 10, Kuwata fails to disclose a controller that: "(1) determines whether image data to be processed includes color space information identifying a color space in which the image information is defined;" and "(2) determines a color space of the image data that is to be processed based on characteristics of the image data when the controller determines that the image data does not include color space information identifying the color space of the image data."

Regarding independent claims 27 and 36, Kuwata fails to disclose the steps of (1) "determining whether image data to be processed includes color space information identifying a color space in which the image data is defined;" and (2) "determining a color space of the image data that is to be processed based on characteristics of the image data when the image data is determined to not include color space information."

Kuwata discloses an apparatus for image adjustment. A digital still camera (DSC) 12 generates an image file 100 (Fig. 1; paragraph [0062]) in the RGB color space (paragraph [0064]), and converts image file 100 into the YCrCb color space for storage (paragraph [0064]). The image file 100 is generally stored in the Exif format with image processing control information GI (paragraph [0065]). The color printer 20 outputs the image file 100 (Fig. 1). Color printer 20 includes control circuit 30 that reads image file 100 and analyzes the image processing control information GI (paragraphs [0078] and [0081]). A CPU 31 receives the image processing control information GI and extracts a color space tag indicating a color space to be implemented (paragraph [0081]; Fig. 6, step S130). The paragraphs [0083]-[0086] cited by the Office Action describe generation of the image file 100 in the color space indicated.

In contrast, the claimed subject matter is directed to determining, from an image file such as an Exif file that lacks information identifying the color space of the image file, the color space in which the image data is defined, based on characteristics of the image data (see, for example, paragraphs [0026]-[0027]).

Kuwata fails to disclose features (1) and (2) above for all the independent claims because, while the Office Action alleges that "the default color space information stored in the printer is inferred [sic] to be the color space of the image data", this does not correspond to the claimed features. The claims recite "determining the color space of the image data that is to be processed based on characteristics of the image" (claim 1). A default color space stored in a printer is not based on a characteristic of the image. To the contrary, a default value is an automatically-selected value chosen regardless of the content of the image.

The Office Action alleges that Borg discloses determining a color space of an image from characteristics of the image.

Borg discloses identifying an unknown color space from a color specification. The color specification defines a transformation from the unknown color space into a well-known color space (Abstract). This is done by using test color spaces and test colors for which the definitions in both the test color spaces and well-known color space are known. In operation, a color specification defining the transformation from an unknown color space to a well-known color space is received (Fig. 1, step 102). Then a set of test colors whose definitions are known in the well-known color space are selected (Fig. 1, step 103). A test color space is selected (Fig. 1, step 104) and the test colors are represented in the test color space (Fig. 1, step 106). The test colors are transformed using the color specification (Fig. 1, step 107) onto the well-known color space and the results are compared against the known values of the test colors in the well-known color space (Fig. 1, step 108). If the transformed values of the test

colors match the known values for the test colors in the well-known color space, that unknown color space is determined to be the test color space (Fig. 1, step 112).

In summary, as discussed at the personal interview, the system of Borg involves an unknown color space, a given, known color specification that transforms colors in the unknown color space into a well-known color space, and the known well-known color space. Borg does not involve determining the color space of any images, but merely uses test colors (whose color spaces are also known) as a means to determine the identity of the unknown color space given the known color specification and known well-known color space.

Borg fails to disclose "inferring means for determining the color space of the image data that is to be processed based on characteristics of the image data" (as recited in claim 1 and similarly in claims 10, 27 and 36) because Borg determines the identity of a color space based on a given color specification and test colors, not on characteristics of an image as recited. Borg does not discuss any images in its discussion of the method cited by the Office Action because the method determines the identity of an unknown color space, not the color space of an image. Thus, Borg also fails to disclose "inferring means for determining the color space of the image data that is to be processed based on characteristics of the image data when the determining means determines that the image data does not include color space information" (as recited in claim 1 and similarly in claims 10, 27 and 36). Thus, Borg fails to cure the deficiencies of Kuwata.

For the foregoing reasons, Applicants request withdrawal of the rejections based on Kuwata.

B. Rejection (2)

Sugiura discloses color space (CS) translation of image files. In operation, an image data source 108 provides image data 110 in a first color space CS1 and tag data 112

representing parameters of the first color space CS1 (col. 1, lines 57-59). CPU 102 translates the image data 110 from color space CS1 into image data 114 in color space CS2 (Fig. 1).

Regarding independent claim 1, Sugiura fails to disclose inferring means for "determining the color space of the image data that is to be processed based on characteristics of the image data when the determining means determines that the image data does not include color space information."

Regarding independent claim 10, Sugiura fails to disclose a controller that "determines a color space of the image data that is to be processed based on characteristics of the image data when the controller determines that the image data does not include color space information identifying the color space of the image data."

Regarding independent claims 27 and 36, Sugiura fails to disclose the step of "determining a color space of the image data that is to be processed based on characteristics of the image data when the image data is determined to not include color space information."

Sugiura fails to disclose the above features for all of the independent claims because Sugiura's image data is provided already with the tag data indicating the parameters of the first color space. Thus, Sugiura does not need, and does not disclose, a determining means or step of determining, that determines whether the image data 110 includes color space information, and if not, an inferring means to determine the color space of the image data 110.

The Office Action alleges that Kuwata and Borg cure the deficiencies of Sugiura. However, Kuwata and Borg, alone or in combination, fail to cure the deficiencies of Sugiura for the same reasons as discussed in relation to rejections (1) and (3) above, namely, that Kuwata and Borg fail to disclose "inferring means for determining the color space of the image data that is to be processed based on characteristics of the image data" (as recited in claim 1 and similarly in claims 10, 27 and 36).

For the foregoing reasons, Applicants request withdrawal of the rejection based on Sugiura.

II. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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